CLAIMS

What is claimed is:

5   1.   A peripheral device for a programmable logic controller, the
peripheral device comprising:

an encryption means for encrypting peripheral device
authentication data used in authentication for authorizing use of
the programmable-logic-controller peripheral device itself,
10   encrypting data used in the programmable logic controller, and
encrypting authentication data that is established in the
programmable logic controller and that verifies whether or not
communication with the programmable logic controller is
authorized for the data used in the programmable logic controller;

15   an external storage means for storing at least peripheral
device authentication data having been encrypted;

an internal storage means for storing at least peripheral
device authentication data having been encrypted;

a decryption means for decrypting the peripheral device
20   authentication data, the data used in the programmable logic
controller, and the authentication data; and

a verification means for determining whether or not use of
the programmable-logic-controller peripheral device is authorized,
by checking peripheral device authentication data read out from
25   the external storage means and decrypted, against peripheral

device authentication data read out from the internal storage means and decrypted.

2.   A programmable-logic-controller peripheral device according to claim 1, wherein when communication between the programmable logic controller and the programmable-logic-controller peripheral device is via a network:

the encryption means is further for encrypting network authentication data for authorizing the communication between the programmable logic controller and the programmable-logic-controller peripheral device;

the external storage means is further for storing the network authentication data; and

the decryption means is further for decrypting the network authentication data stored in the external storage means.